

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applicant : Mark Gilmore Mears et al.
Serial No. : 10/578,828
Filed : May 9, 2006
For : METHOD AND APPARATUS FOR PERFORMING
SELECTABLE CHANNEL SEARCH
Examiner : Pinkal R. Chokshi
Art Unit : 2425

APPEAL BRIEF

May It Please The Honorable Board:

This is Appellants' Brief on Appeal from the final rejection of claims 1-18.
Please charge the \$540.00 fee for filing this Brief to Deposit Account No. 07-0832.
Appellants waive an Oral Hearing for this appeal.

Please charge any additional fee or credit overpayment to the above-indicated
Deposit Account. Enclosed is a single copy of the Brief.

I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/578,828 is the Assignee of
record:

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II. RELATED APPEALS AND INTERFERENCES

A previous Notice of Appeal was filed regarding Application Serial No. 10/578,828 on February 2, 2010. An Appeal Brief was subsequently filed on April 5, 2010. In view of the Appeal Brief filed on April 5, 2010, Examiner reopened prosecution, issuing an Office Action with a new ground of rejection.

III. STATUS OF THE CLAIMS

Claims 1-18 are rejected and the rejection of claims 1-18 is appealed.

IV. STATUS OF AMENDMENTS

All amendments have been entered and are reflected in the claims included in Appendix I.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 claims a method for enabling a channel search in a signal processing apparatus comprising the steps of: generating a signal suitable for coupling to a display device for displaying an on-screen menu (page 4, line 24, page 6, lines 28-33, and Figure 3, element 320); enabling a user to select a plurality of options for said channel search responsive to said on-screen menu (page 4, lines 24-25); and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched (page 4, lines 26-27, and Figure 3, element 330) and a second option to individually select which of a plurality of types of channels are to be searched. (page 4, lines 27-28, and Figure 3, element 340)

Independent claim 7 claims an apparatus for enabling a channel search, comprising: memory means for storing data used to generate a signal suitable for coupling to a display

device for displaying an on-screen menu (page 4, lines 32-34, page 6, lines 28-33, and Figure 2, element 25); processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu (page 4, lines 31-34, and Figure 2, element 24); and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched (page 4, line 34 through page 5, line 2) and a second option to individually select which of a plurality of types of channels are to be searched. (page 5, lines 2-3)

Independent claim 13 claims a video signal processor, comprising: a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu (page 5, lines 7-8, and Figure 2, element 25); a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu (page 5, lines 8-10, and Figure 2, element 24); and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched (page 5, lines 10-13) and a second option to individually select which of a plurality of types of channels are to be searched. (page 5, lines 10-13)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner has rejected claims 1 – 18 as being unpatentable under 35 U.S.C. §103(a) over Shintani (US Publication No. 2005/0086693 A1), in view of Kikinis (US Patent No. 7,213,256 B1).

VII. ARGUMENT

Rejection of Claims 1 – 18 under 35 USC 103(a) **over Shintani (US Publication No. 2005/0086693 A1),** **in view of Kikinis (US Patent No. 7,213,256 B1)**

CLAIMS 1-6

The invention, as recited in claims 1-6, is not anticipated by Shintani or Kikinis as asserted by the Examiner. In the present case, the Examiner has failed to show that Shintani or Kikinis teach or suggest all of the limitations of independent claim 1. Specifically, it is respectfully asserted that neither Shintani nor Kikinis, alone or in combination, disclose generating an on-screen menu “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 1.

A problem addressed by the subject application is the length of time required by a television signal receiver to perform a channel search including scanning all possible frequencies and modulation types for all possible channels on all available inputs. The time required can be particularly long with television signal receivers capable of receiving and decoding both analog channels (e.g., NTSC, PAL, SECAM, etc.) and digital channels (e.g., ATSC, QAM, VSB, etc.).

To solve this problem, the subject application discloses a method for reducing the search time by providing users with flexible channel search options such that they may select only those search options they desire. As described in claim 1, an on-screen menu is provided enabling a user to select a plurality of options for the channel search. The options

include a first option to individually select which of a plurality of inputs to the signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched. Thus, the user is able to include in the search only those inputs and only those types of channels that are relevant in the user's environment, thereby potentially vastly reducing the time required for channel scanning. Furthermore, the user is able to search applicable inputs and channel types with a single search.

Shintani teaches that “a method for use in generating a television channel map can select a first input of a plurality of inputs, select a first single modulation scheme of a plurality modulation schemes on the first input, tune in a plurality of channels for the identified single modulation scheme, determine if a broadcast is received on each of the channels, record channels that are determined to receive broadcasts in a channel map according to the plurality of tuned channels for the identified single modulation scheme, and not perform a full auto-program.” (Shintani paragraph 0006)

The Examiner asserts, “Shintani meets all the limitations of the claim except ‘enabling a user to select a plurality of options responsive to said on-screen menu.’” (Office Action, page 6) Applicant respectfully disagrees both with the assertion that Shintani meets all of the other limitations of the claim and with the characterization that “enabling a user to select a plurality of options responsive to said on-screen menu” is one of the claim limitations.

Shintani does state that “a user can manually activate the enhanced auto-programming and select one or more of the specific modulation schemes to evaluate.” (Shintani, paragraph 0033) Shintani does not, however, disclose providing options for both

individual control over which inputs (e.g., cable or antenna) are scanned and which channel types (e.g., NTSC, 64-QAM, 256-QAM) are scanned. The system of Shintani would require the user to at least initiate multiple scans, one for each input to be scanned, thereby failing to provide much of the benefit of the presently claimed invention. Thus, Shintani fails to disclose a method for enabling a channel search “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in claim 1.

While the Examiner admits that Shintani does not disclose “enabling a user to select a plurality of options responsive to said on-screen menu,” the actual limitation is “enabling a user to select a plurality of options for said channel search responsive to said on-screen menu.” Thus, combining Shintani with a reference providing other types of non-channel search options would not cure that deficiency of Shintani, let alone the remaining deficiency described above.

In Kikinis, a method and apparatus “providing for expanded search functionality in an electronic program guide (EPG) for television is described. The expanded search function finds show titles that are the same or similar to the show title of the program data currently displayed by the EPG. The expanded search function also finds shows similar to the one currently displayed by the EPG by using additional search elements based on the descriptive part of the EPG program data, such as actors, director, genre, etc., as well as search parameters based on the show time, channel, etc. Rather than only finding exact matches, the expanded search function uses fuzzy logic to find near matches and prioritizes the results according to the search elements and parameters as specified by the viewer.” (Kikinis Abstract)

The Examiner asserts, “Kikinis discloses (col.3, lines 36-59) that the GUI is provided with a plurality of options to select to search for a program to the user as represented in Fig. 3b.” (Office Action, page 5) Even if Kikinis makes such a disclosure, it does not represent one of the limitations of the present claims.

The present claims relate to channel search / scanning amongst signal sources, not television show data search, and they require that options be provided both for which inputs (e.g., antenna or cable) are to be searched and which types of channels (e.g., NTSC, 64-QAM, 256-QAM) are to be searched. (Claim 1 and, for instance, Specification, [0030] and [0036]) In contrast, Kikinis relates to searching for related shows in an EPG with an already-known list of channels. In Kikinis, show search parameters related to descriptive EPG data such as information about title, directors, actors, or genre. (Kikinis, column 3, lines 36-59, Fig. 3b) These options bear no relation to the channel search / scanning problem addressed by the present claims where a list of available transmitted channels is not yet even known, and do not represent “options for channel search.”

Thus, Shintani and Kikinis, alone or in combination, fail to disclose a method for enabling a channel search “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in claim 1. Thus, it is submitted that the invention recited in claim 1 is non-obvious in light of the cited references and the “knowledge of one skilled in the art” at the time of the invention.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Shintani or Kikinis, alone or in combination, that makes the present invention as claimed in claim 1 unpatentable. Since dependent claims 2-6 are dependent from allowable independent claim 1, it is submitted that they too are allowable for at least the same reasons that independent claim 1 is allowable.

CLAIMS 7-12

The invention, as recited in claims 7-12, is not anticipated by Shintani and Kikinis, as asserted by the Examiner. In the present case, the Examiner has failed to show that Shintani and Kikinis teach or suggest all of the limitations of independent claim 7. Specifically, it is respectfully asserted that neither Shintani nor Kikinis, alone or in combination, disclose “processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 7.

The present invention, as recited in claim 7, describes an apparatus for enabling a channel search, comprising: memory means for storing data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu; processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

As described above with respect to claims 1-6, Shintani and Kikinis fail to disclose generating an on-screen menu “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 1.

In failing to disclose options for individual selection of inputs and channel types, Shintani and Kikinis also necessarily fail to disclose a processing means enabling such selections. Thus, both Shintani and Kikinis fail to disclose “processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 7.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Shintani or Kikinis, alone or in combination, that makes the present invention as claimed in claim 7 unpatentable. Since dependent claims 8-12 are dependent from allowable independent claim 7, it is submitted that they too are allowable for at least the same reasons that independent claim 7 is allowable.

CLAIMS 13-18

The invention, as recited in claims 13-18, is not anticipated by Shintani and Kikinis, as asserted by the Examiner. In the present case, the Examiner has failed to show that Shintani and Kikinis teach or suggest all of the limitations of independent claim 13. Specifically, it is respectfully asserted that neither Shintani and Kikinis, alone or in combination, disclose “a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 13.

The present invention, as recited in claim 13, describes a video signal processor, comprising: a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu; a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.

As described above with respect to claims 1-6, Shintani and Kikinis fail to disclose generating an on-screen menu “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 1.

In failing to disclose options for individual selection of inputs and channel types, Shintani and Kikinis also necessarily fail to disclose a controller enabling such selections. Thus, both Shintani and Kikinis fail to disclose “a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as described in independent claim 13.

In view of the above remarks, it is respectfully submitted that there is no 35 USC 112 enabling disclosure provided by Shintani and Kikinis, alone or in combination, that makes the present invention as claimed in claim 13 unpatentable. Since dependent claims 14-18 are dependent from allowable independent claim 13, it is submitted that they too are allowable for at least the same reasons that independent claim 13 is allowable.

VIII CONCLUSION

Shintani and Kikinis fail to teach or disclose all of the limitations of the independent claims. Specifically, Shintani and Kikinis fail to teach generating an on-screen menu “wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched,” as is described in the present claims. Accordingly, it is respectfully submitted that the rejection of claims 1-18 should be reversed.

Respectfully submitted,
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APPENDIX I - APPEALED CLAIMS

1. (Previously Presented) A method for enabling a channel search in a signal processing apparatus comprising the steps of:
generating a signal suitable for coupling to a display device for displaying an on-screen menu;
enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and
wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said signal processing apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.
2. (Previously Presented) The method of claim 1, wherein said plurality of inputs includes a cable input and an antenna input.
3. (Previously Presented) The method of claim 1, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.
4. (Previously Presented) The method of claim 1, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.
5. (Previously Presented) The method of claim 4, wherein said plurality of options further includes a fourth option to search previously found channels.
6. (Previously Presented) The method of claim 5, further comprised of performing said channel search according to said plurality of options selected by said user.

7. (Previously Presented) An apparatus for enabling a channel search, comprising:
memory means for storing data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu;
processing means for enabling a user to select a plurality of options for said channel search responsive to said on-screen menu; and
wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said apparatus are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.
8. (Previously Presented) The apparatus of claim 7, wherein said plurality of inputs includes a cable input and an antenna input.
9. (Previously Presented) The apparatus of claim 7, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.
10. (Previously Presented) The apparatus of claim 7, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.
11. (Previously Presented) The apparatus of claim 10, wherein said plurality of options further includes a fourth option to search previously found channels.
12. (Previously Presented) The apparatus of claim 11, wherein said processing means enables performance of said channel search according to said plurality of options selected by said user.

13. (Previously Presented) A video signal processor, comprising:
a memory operative to store data used to generate a signal suitable for coupling to a display device for displaying an on-screen menu;
a controller operative to enable a user to select a plurality of options for a channel search responsive to said on-screen menu; and
wherein said plurality of options includes a first option to individually select which of a plurality of inputs to said video signal processor are to be searched and a second option to individually select which of a plurality of types of channels are to be searched.
14. (Previously Presented) The video signal processor of claim 13, wherein said plurality of inputs includes a cable input and an antenna input.
15. (Previously Presented) The video signal processor of claim 13, wherein said plurality of types of channels includes digital modulation channels and analog modulation channels.
16. (Previously Presented) The video signal processor of claim 13, wherein said plurality of options further includes a third option to detect a type of signal received via least one of said plurality of inputs.
17. (Previously Presented) The video signal processor of claim 16, wherein said plurality of options further includes a fourth option to search previously found channels.
18. (Previously Presented) The video signal processor of claim 17, wherein said controller is further operative to enable performance of said channel search according to said plurality of options selected by said user.

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APPENDIX II - EVIDENCE

None.

APPENDIX III - RELATED PROCEEDINGS

None.

APPENDIX IV - TABLE OF CASES

None.

APPENDIX V - LIST OF REFERENCES

<u>Pat. Doc. No.</u>	<u>Issued Date</u>	<u>103(a) Date</u>	<u>Inventors</u>
US-2005/0086693 A1	April 21, 2005		Shintani
US-7,213,256 B1	May 1, 2007		Kikinis